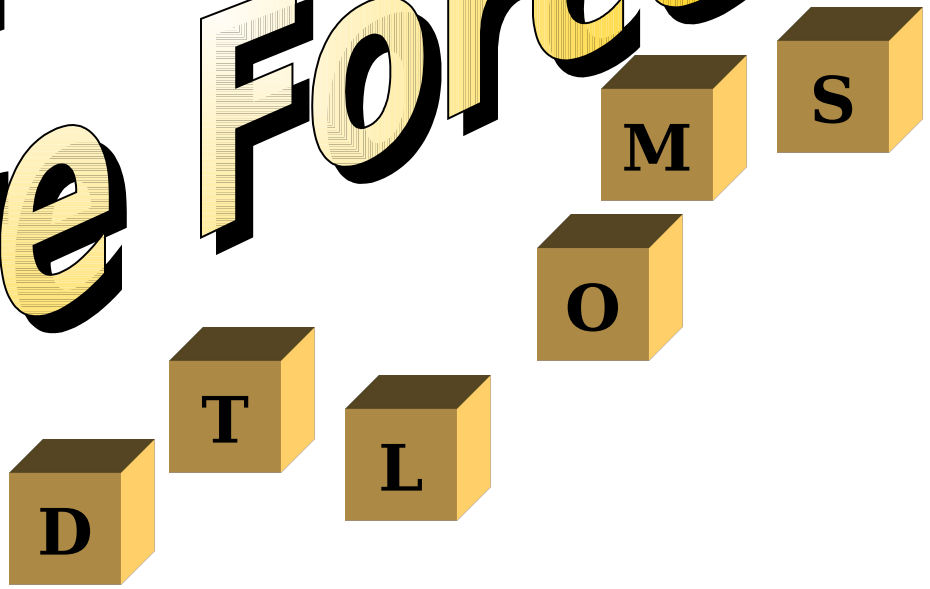
Aviation Issues for the Future Force



Aviation Leader Development

We Develop Leaders by Maximizing Experience and Training

- Experience is Gained through Operational Assignments in Formative Years
- Training is Gained through Institutional and Self-Development

In the Current Force, **Leaders:**

- Are Trained in a Single Platform
- Are Focused on Their Mission "Niche"
- Are Exposed to Multi-system, Multi-dimensional Operations at Brigade Level
- Are Selected for Battalion Command Based on Aircraft Type

In the Future Force, **Leaders:**

- Will Be Trained in the Employment of Multiple Systems
- Will Possess Greater Versatility in Executing Reconnaissance, Attack and Lift Missions
- Will Be Exposed to Multi-system, Multi-Dimensional Operations at Battalion Level
- Will be Selected for Battalion Command based on leadership and experience

Requires:

- A Culture Change – Platforms Enabled by Leaders/Soldiers
- Change in Career Progression Model
- Leaders Proficient in the Employment of Different Aircraft

Competent, Confident Leaders in Multi-dimensional Combined Arms, Full Spectrum Operations

Army Aviation Warrant Officers

Experience at the Unit of Action Level

Why Aviation Warrant Officers…

Highly Specialized, Single Track Offic

Operational Environment

- Full Spectrum Operations
  - MTW, SSC, SASO
- Non-linear, Asymmetric Battle Space

Operational Requirements

- 24-Hour Operations
- BN is the Unit of Maneuver; CO is the Unit of Action
- Potential for TM/PLTs Ops for Increased Battle Space Independent

Operational Imperatives

- Systems and mission complexities require more senior warrant officers (CW3 / CW4) at CO and BN level
- Warfighting continuity in operational units is a must
- As technical and functional leaders – senior AWOs provide valuable skills, guidance, expertise, and depth to

Technical

Standardization Instructor Pilots, Safety, Maintenance, Tactical Operations

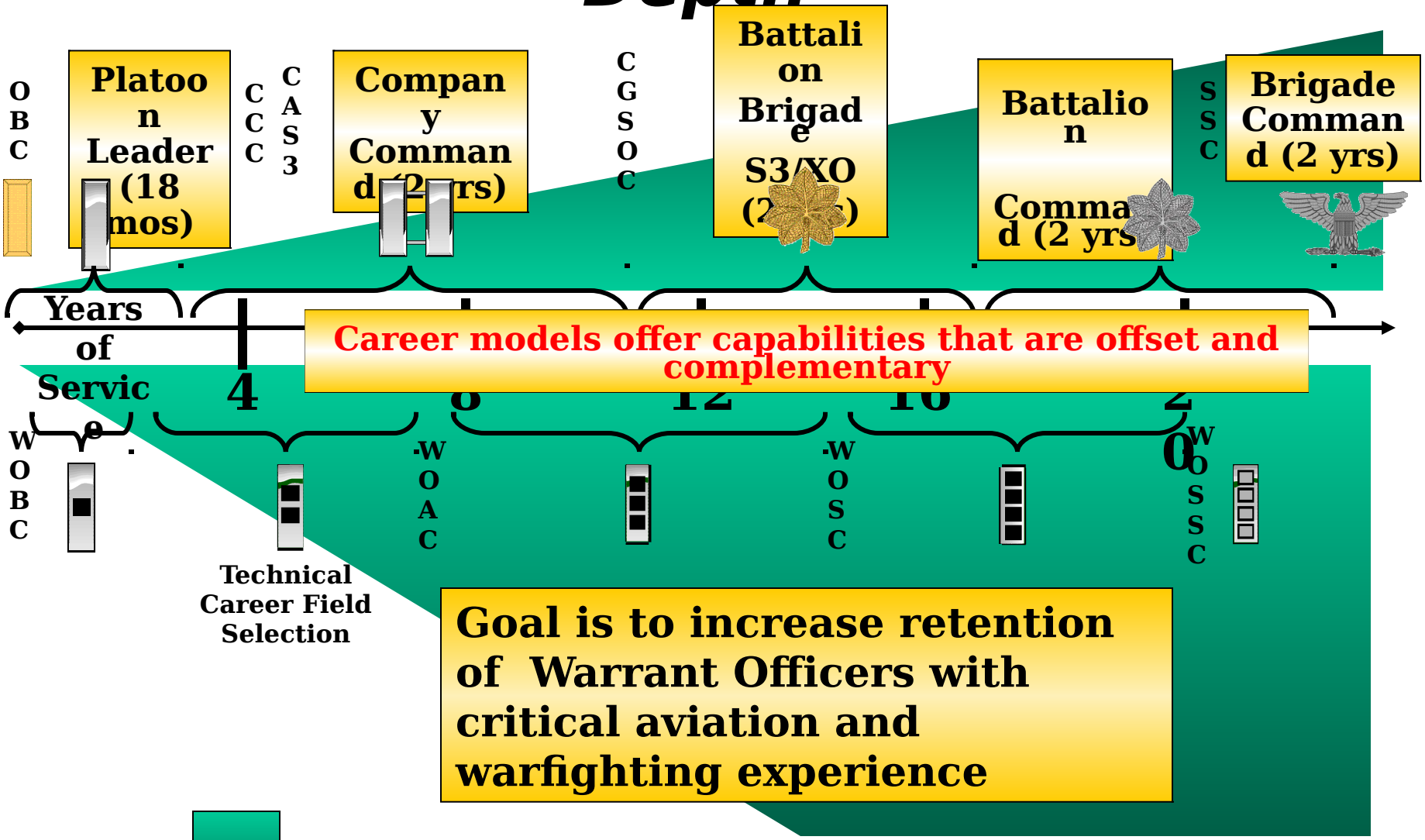
Functional

Pilots-in-Command, Flight Leads, Air Mission Commanders in Recon, Attack, and Lift Missions

Aviation Warrant Officers are Warfighters!

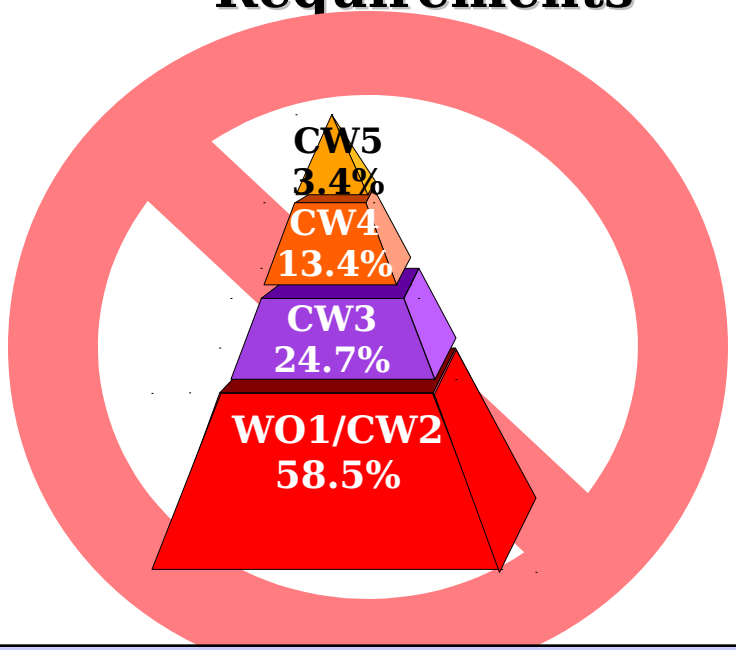
Experienced, Capable, Combined Arms Trained

Aviation Warrant Officers Add Depth



Aviation Warrant Officer Strategy

Must have Tailored Structure to Meet Operational Requirements



"STANDARD" AVERAGE GRADE DISTRIBUTION MATRIX (AGDM) IS THE SAME FOR ALL WARRANT OFFICER SPECIALTIES – THIS DOES NOT MEET AVIATION STRUCTURE AND OPERATIONAL REQUIREMENTS

ADS XXI Task Force

Soldiers for the 21st Century Army

Issues must be addressed

Synergy in Establishing the *Right* Structure with a Holistic and Systematic Approach

Change the current one-size fits all AGDM to meet Aviation structure and operational requirements:

- **Increase grade structure at CW3 and CW4 grade plates to put experience at the CO/BN level**
- **Allocate sufficient Budgeted End Strength to resource structure, operational requirements and TTHS**
- **Establish steady state accessions to meet and sustain requirements and structure**
- **Increase promotion opportunity percentages for CW3 and CW4**
- **Permit fully qualified AWOs**

Army Aviation Digitization Strategy

Aviation's Digitization Strategy

- Follow 3-phased approach for the modernized fleet and C2 systems

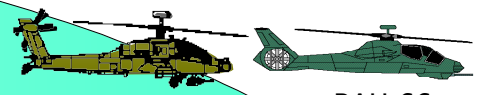
OH-58D KW AH-64D LBA

Phase I, FY01-03:

- Limited C2 msgs; No SA

Phase II, FY04-06:

- Modernization production lines for all platforms
  - Implement full IDM+/EBC



AH-64D LBA RAH-66

CH-47F UH-60M

Phase III, FY07 and beyond:

- Embed IDM+/EBC objective functionality for all aircraft
- EPLRS functionality in JTRS/ ICNIA for all aircraft (discrete EPLRS in AH-64D)

- Digitize legacy fleet as aircraft are recapitalized.

- Synchronize aircraft software changes to correlate with major EBC updates.

- Limited capability without JTRS (data, BLOS, imagery). Must pursue interim capability if JTRS continues to slip (EPLRS Appliqué, JCIT).

- Field enablers, automated TOC, A2C2S, TAIS, AMPS

C4ISR Architecture Concept – "Increased Capability in Objective Force"

TI Connectivity

Platform

- Positive C2 Throughout Battlespace
- Sensor Connectivity
- Joint Integration
- Air / Ground Extended Ranges

- Data Buss Architecture
- Mission Processor
- Aviation Soldier Machine Interface
- Real Time SU/SA
- Video Throughput

Communicati

IDM JTRS

Software

EBC

- SA In Cockpit (Blue/Red Cop)
- Continuous Connectivity
- BLOS Gateway
- Digital Message

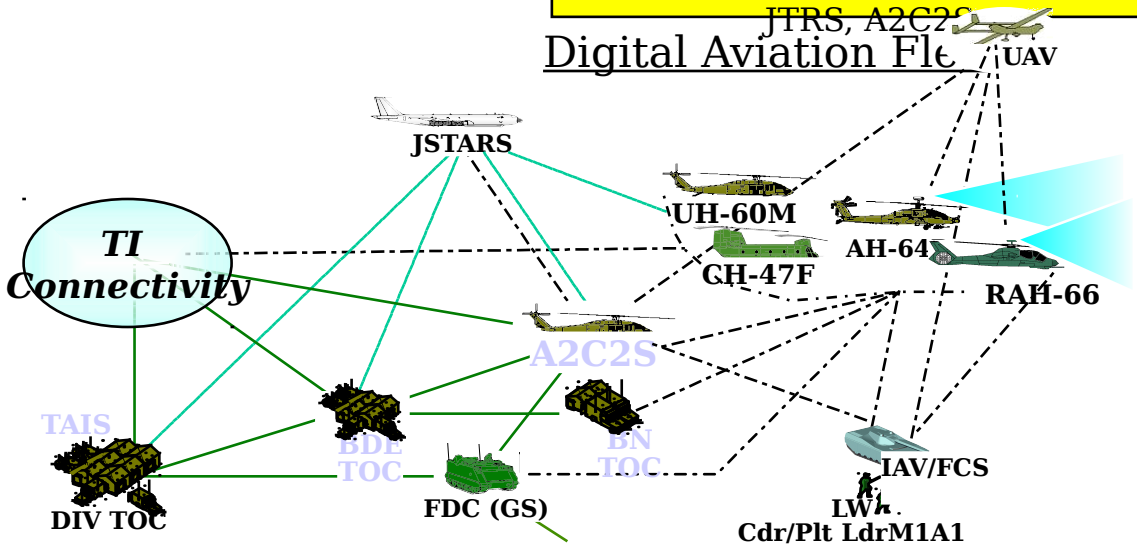
Challenges

- EBC Development
- Tactical Internet Maturity
- NLOS Architecture

Pacing items: Aviation EBC, JTRS, A2C2S

Seamless Connectivity During Simultaneous and Sequential Air – Ground Operations, To Include Operational and Tactical Depths

Digital Aviation Fle



"System of Systems Architecture"

Aviation Contributes Info Critical to Situational Understanding Throughout the

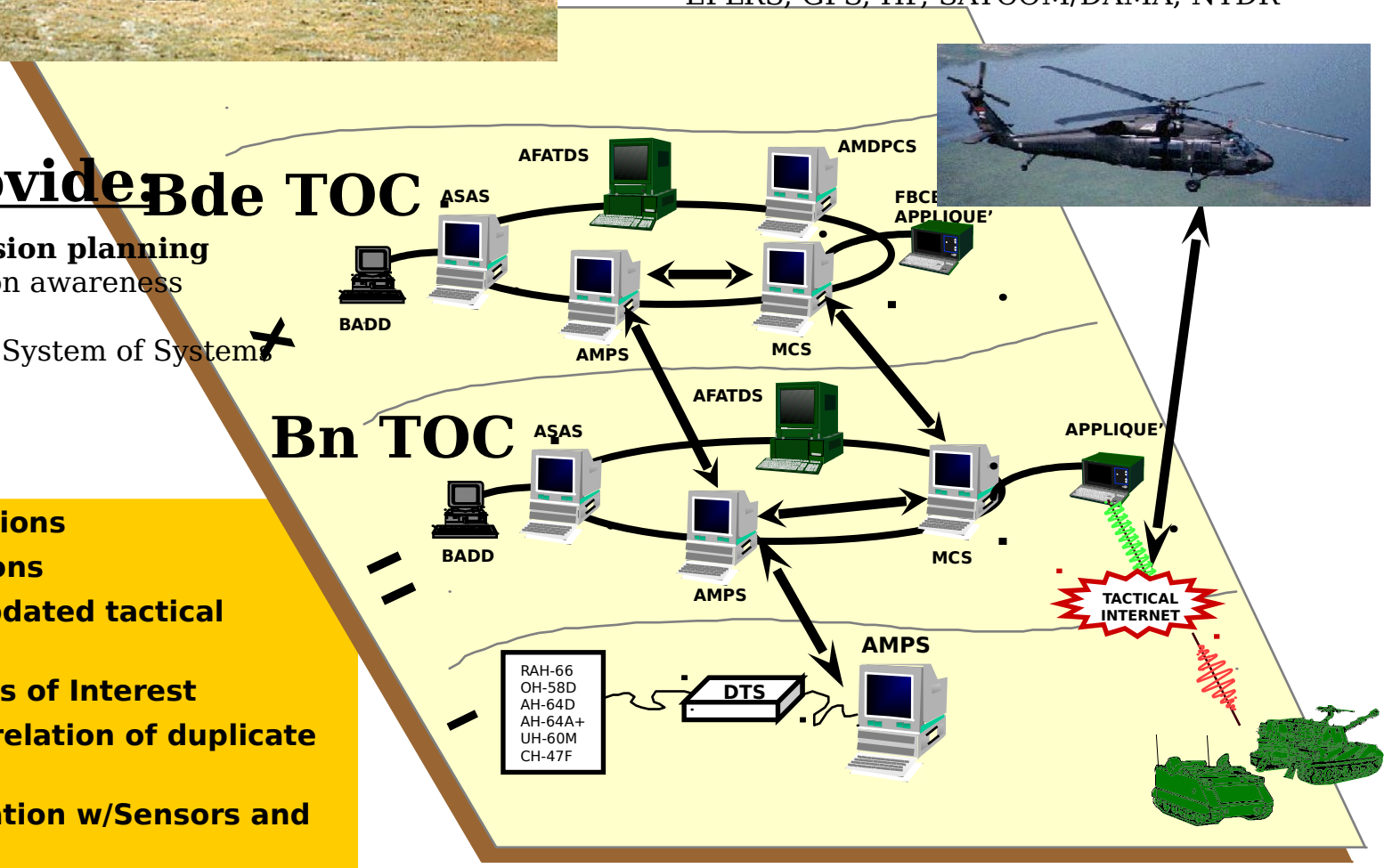
TOC C4ISR Functionality

Airborne C2: A2C2S

- ✓ **C2 On the Move**
- ✓ SA--MCS, ASAS, AFATDS, FBCB2, AMPS
- ✓ User Interface--5 workstations, 2 common displays
- ✓ Comms--SINCGARS SIP, HQ II, EPLRS, GPS, HF, SATCOM/DAMA, NTDR

TOCs Provide:

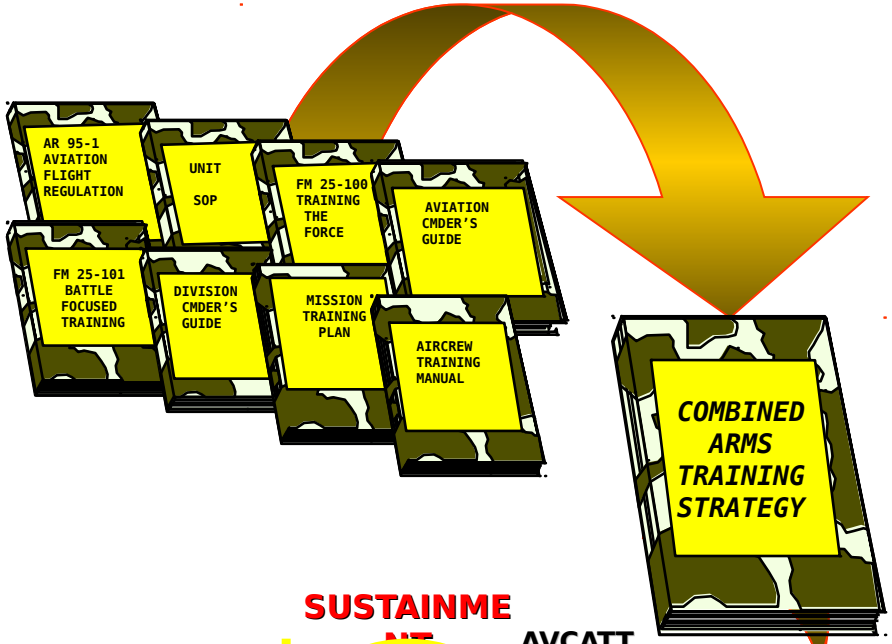
- ✓ **Automated mission planning**
- ✓ Real-time situation awareness
- ✓ C4I Node.
- ✓ Integrated ABCS System of Systems

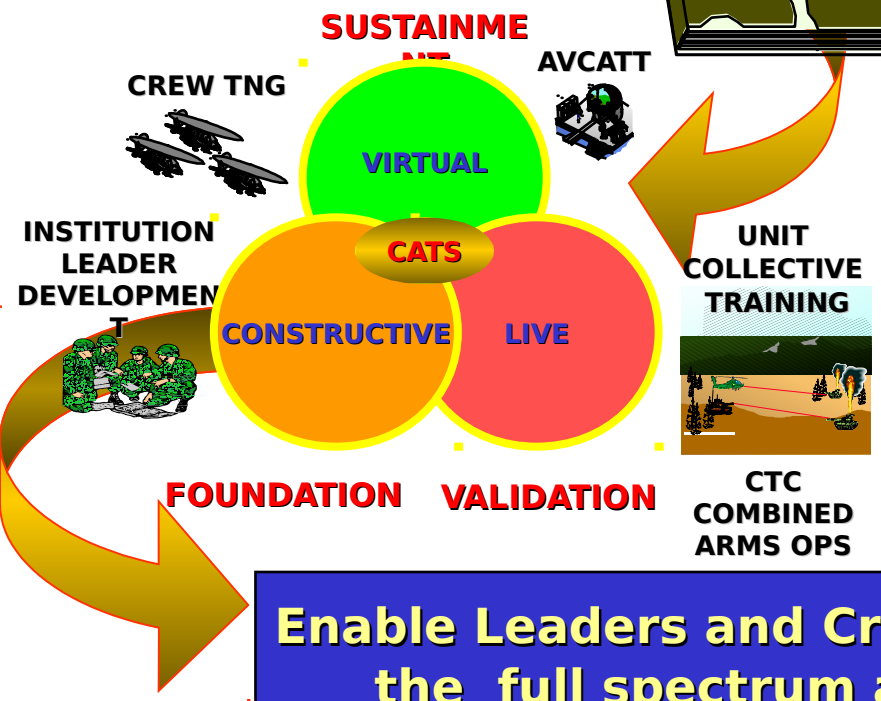


- **Friendly Positions**
- **Enemy Positions**
- **Constantly updated tactical graphics**
- **Known Targets of Interest**
- **On-board correlation of duplicate targets**
- **SU/SA Integration w/Sensors and C2 Nodes**

Army Aviation Training & Simulation Modernization

Aviation Training Strategy





Institutional Training Base

FT Rucker - EAATS - WAATS

- ❖ Convert to FSXXI Structure by FY02
- ❖ Upgrade Simulations to Leverage Capabilities
- ❖ Priority for Regional Training Sites - Complete Suite of New Simulations
- ❖ Augment Training Base with RC Instructor Pilots
- ❖ Expand EAATS Capability for UH-60 AQC Training
- ❖ Expand WAATS Capability in FY 01 for OH-58A/C Training
- ❖ Augment Ft Rucker with AH-64 IP's in Near Term
- ❖ Transfer of AH-64A Training to WAATS NLT FY04

Home Station Training

Unit Location – Regional - Logistics

- ➢ Resource CATS
- ➢ Increase DL/Web Base training Capability to facilitate Maintainer/ Aircrew/Leader Training in New Systems
- ➢ Procure New / Upgrade TADSS/Home Station Instrumentation (HSI)
- ➢ Establish Regional Training Centers - Align Units to Ensure Training and Readiness for Augmentation and Backfill Capabilities
- ➢ Develop Integrated Logistical Support Plan to Meet Transformation

**Enable Leaders and Crews to Fight their combat systems ac
the full spectrum as part of a joint and combined arms t**

FLIGHT SCHOOL XXI

Current Void

- Individual Based Proficiency
- Limited Collective / Combined Arms Training
- No Combat Skills Training in Modern Aircraft
- Limited NVG Training In Modern Aircraft
- Lack of Survival/Overwater Training
- RL 3 at Graduation

Key to Future

- Leaders Capable of Leading Upon Arrival to Unit
- Capable of Employing Warfighting Systems
- Maximize use of Simulations in Training Strategy
- Ready for Mission Training
- Competent, Confident, Safe in Executing Unit Mission

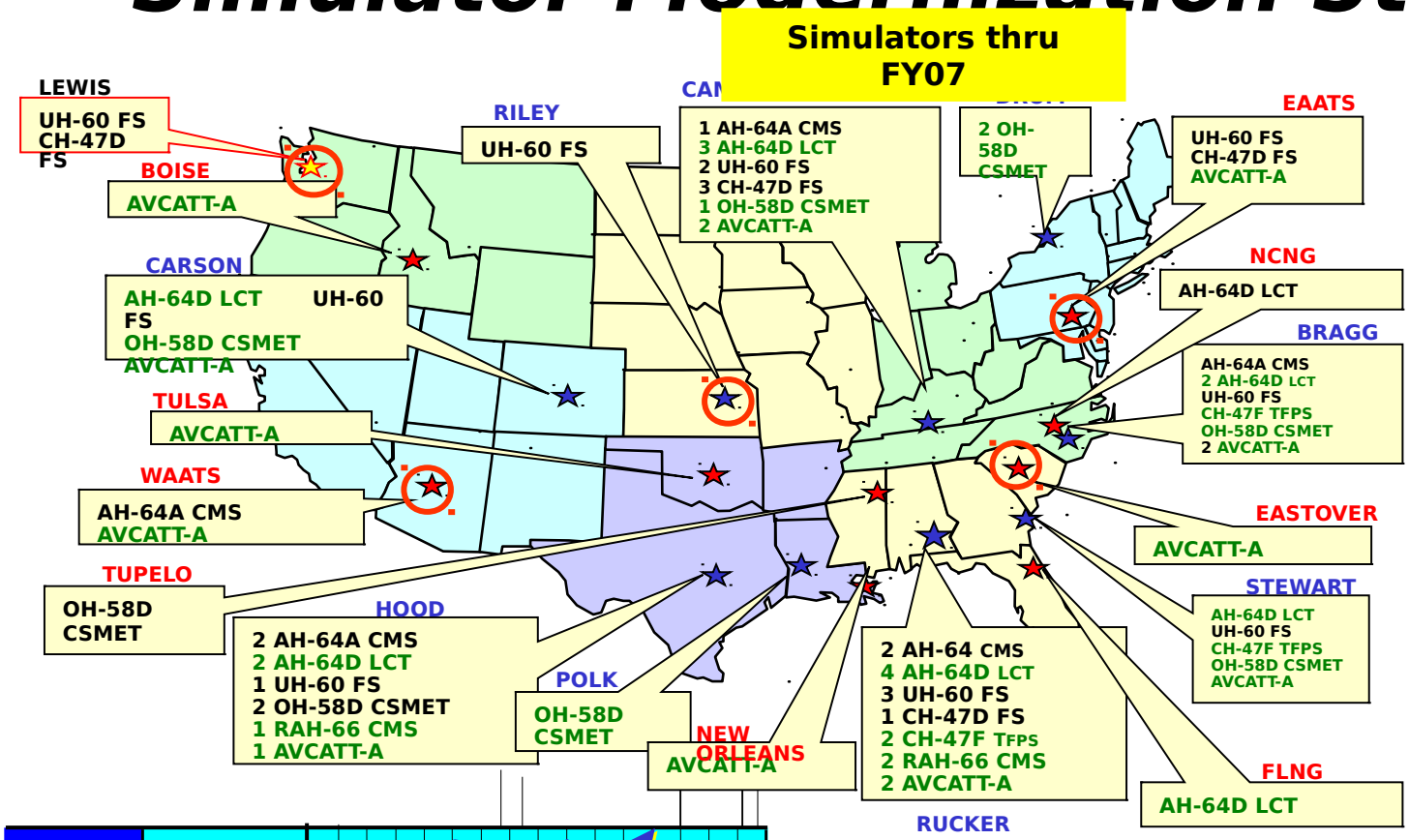
What it Does

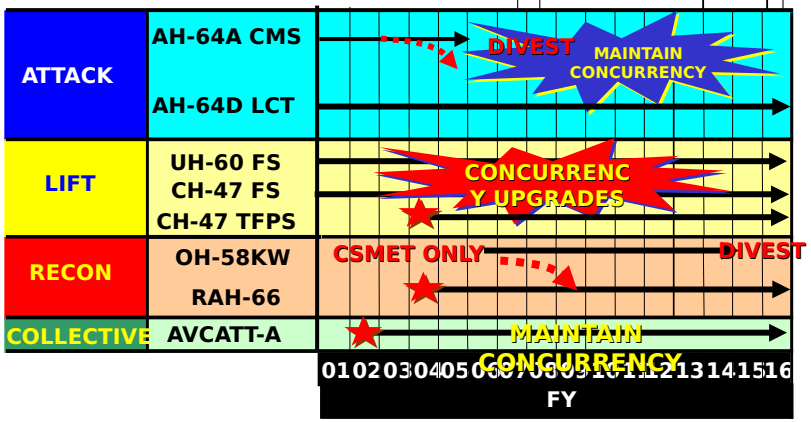
- Increases Training in go-to-war aircraft
- Eliminates UH1 / OH58 & down-training IPs
- Increases modernized aircraft experience in IPs
- Returns IPs to the field
- Complements Unit CATS
- SERE & Overwater Training
- [illegible]minates IERW [illegible]ble
- [illegible]ces TTHS

Goal – *Execute in FY02*

Enhanced Combat Readiness And Force Protection

Simulator Modernization Strategy





- BLUE = ACTIVE COMPONENT
- RED = RESERVE COMPONENT
- REGIONAL TRAINING SITE

- AC suites co-located with units
- RC simulators regionalized

Brigade Simulator Suite

- Longbow Crew Trainer
- Blackhawk Simulator
- Comanche Simulator
- Chinook Simulator (Corps)
- AVCATT-A Collective Trainer

TADSS Issues

- CATS Funding Vital To Validate Training
- Fielding AVCATT-A, LCT and CH-47F TFPS Critical For Sustainm training
- Currency Between Aircraft and Simulato A Must To Replicate Training

TADSS modernization is critical to aviation combat effectiveness and ability to train effectively within

Army Aviation Reliability & Sustainment

Aviation System Reliability

Trend is:

...Declining Reliability
...Increased MMH/Flt Hr
...Parts Availability Low, Spares at Critical Level
...Increased Safety of Flight/Safety Action Messages
...Lack of Integrated Management Information System
...Reduced Maintainers at Organizational Level
...System Sustainment Technical Support (SSTS) Resourcing Decremented
...Lack of Recap Program for Aircraft or Flight Safety Components
...Inspect and Repair as Needed Policy
...Aircraft Exceed Half-Life Metric
...Divestment of Legacy Systems Overdue

Will Require Resources to Reverse Trend

Future Force Demands Increased Reliability, Sustainability, Supportability and Reduced Log Foot Print

Fix is:

...Reverse Trends
...VCSA Directed R&S Task Force Identified Systemic Deficiencies and Priority Safety and Reliability Fixes
...Recapitalization Policy Established
...Aviation Safety Action Team Identified Key Component Fixes in Each Fleet
...Roles and Responsibilities of Acquisition and Logistics Communities for Life Cycle Management Set- (VCSA/Acquisition Executive Memo)
...Recap Program Partially Funded in 02-07 POM
...Force Structure Deficiencies Addressed in Aviation Modernization Plan
...Management Information System

Apache Fleet

High Cost and Sustainment Components:

- TADS / PNVS (30%)
- Rotor (15%)
- Propulsion (12%)
- Drive (11%)
- Avionics (10%)
- Other (22%)

"A Snapshot"
AH 64A Mission Capable Rates

	Jul	Aug	Sep	Oct
AC	83	82	83	78
Reserve	65	75	75	63
NG	52	51	53	44
		NMCM		
AC	17	18	17	19
Reserve	27	15	15	28
NG	36	35	35	42

What are We Doing:

- TADS/PNVS Upgrade Under Contract Oct. 00
- Recap Program:
  - Selective Upgrade A-D MY II for 501 LBA
  - Applies 38 ECP's and 18/27 Future Initiatives form R&S TF
- Rotor / Drive System under Engineering Study for Application Beginning FY 05

Still Required Work in Progress:

- TADS/PNVS Extended To all Aircraft
- Reestablish Component Improvement and Lead the Fleet Programs

- **Parts and Spares Shortage Masked by Controlled Substitution**
- **Increased Inspections Continue from**

Goal: Increase Reliability, Decrease NMH / Flt Hr, Reduce Inspections, Reduce Flt Hr Costs by FY 03

&S Management Information System (MI

R&S Task Force

1. No Single Agency Responsible for Fleet Mgt.
2. No Data Collection Capability/Process
3. No Integrated Maintenance Mgt. Data Base
4. Many Automated/Manual Systems with Stove Pipe Metrics

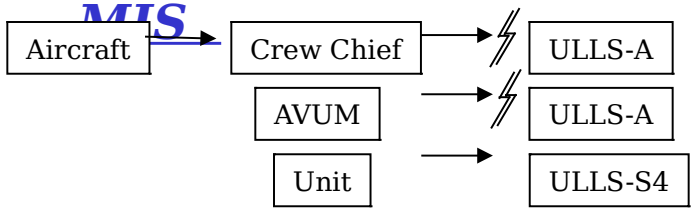
R&S Panel Recommended: DCSLOG Create an R&S MIS Unified Database Enhancement

1. Fleet Readiness Responsibilities

- Aviation PMs Believe They Are Responsible
- Hoeper – Keane Memo: AMC/MACOMs Responsible For Readiness & Supportability
- Need Clearer Focus On Information Required
- Must Change Focus To ***Fleet Metrics***
- Unit & Sustainment Base Requires Better Focus on Data Required To Manage Fleet

2. MIS Data Requirements

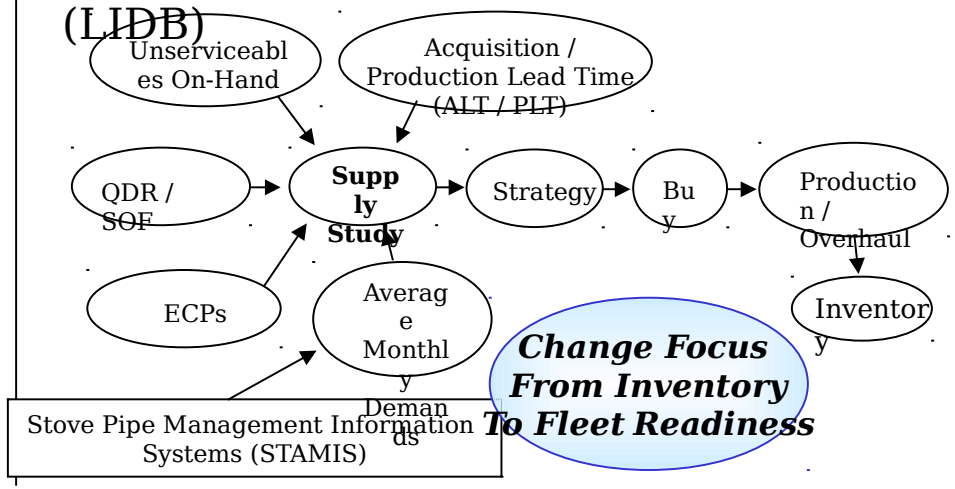
3. Current Unit Level MIS



Possible Interim Solutions:

- Data Collection & Analysis Management Information System (DCAMIS)
- Advanced Maintenance Aid - Chinook (AMAC)
- Logistics Integrated Data Base (LIDB)

4. Commodity Command Standard



&S MIS Requires Unity Of Command & Common Focu

R&S MIS Mid Course Corrections

- Establish A “Mind-Set” That Everyone Must Focus On Aircraft Readiness
- DA Establish Fleet Metrics To Focus All Sustainment Initiatives; e.g.:
  - * Lower Flight Hour Costs 10% by 2003
  - * Increase Fleet Readiness 5% by 2004
  - * Reduce Logistics Footprint 50% by 2010
- Use DCAMIS & AMAC As An Interim Solution & Test Bed For PM GCCS-A Aviation Maintenance Module
- Establish Shared Data Environment For Storage/Retrieval of All Aviation Logistical Information, e.g. LIDB
- DA Place Priority on Keeping GCSS-A Aviation Maintenance Module Funded & On Schedule As Aviation Logistics MIS Objective Solution
- Focus Supply System on Readiness vice Inventory --

GCSS-A Should Be The Objective Solution For Aviation

Summary

Summary of Decisions

1. **Approve Aviation Objective Force Organizational Design**
2. **Approve RAH-66 Comanche as the Multi-Role Reconnaissance and Attack System for the Objective Force**
3. **Approve the Aviation Transformation Strategy and the Development of an Implementation Plan**

Recommendation

Continue to Work Implementation Strategy and Objective Force Concept

"This is about our Future, about leaders & soldiers."